

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated February 3, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-17 are under consideration in this application. Claims 1 and 11-12 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicants' invention.

Addition Amendments

All the amendments to the drawings and the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

The drawings were objected to due to informalities and the Examiner has requested correction thereof. As indicated above, the figures are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 1-2, 4-12 and 14-17 were rejected under 35 U.S.C. § 102(b) on the grounds of being anticipated by US Pat. No. 5,600,343 to Sarrasin (hereinafter "Sarrasin"), and claims 3 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sarrasin. These rejections have been carefully considered, but are most respectfully traversed.

The image display of the invention (for example the embodiment depicted in Figs. 6-10), as now recited in claim 1, comprises: a display device including, a first plate 14 (Fig. 8) having: a plurality of electron-emitter elements 301 (Fig. 10) each having a structure comprised of a base electrode 13, an insulating layer 12 and a top electrode 32 stacked on one

another in this order, said electron-emitter element 301 emitting electrons from the surface of the top electrode 32 (as shown in Fig. 8) when a voltage of positive polarity is applied to the top electrode 32; a plurality of first electrodes 310 (Fig. 10) for respectively applying driving voltages to the base electrodes 13 of the electron-emitter elements 301 lying in a row (or column) direction, of said plurality of electron-emitter elements 301; and a plurality of second electrodes 311 (Fig. 10) for respectively applying driving voltages to the top electrodes 32 of the electron-emitter elements 301 lying in the column (or row) direction, of said plurality of electron-emitter elements 301; a frame component; a second plate 110 (Fig. 8) having phosphors 114; wherein a space surrounded by said first plate 14, said frame component and said second plate 110 is brought into vacuum; first driving means 41 (Fig. 10) for supplying driving voltages to said respective first electrodes 310; and second driving means 42 (Fig. 10) for supplying driving voltages to said respective second electrodes 311. The first driving means 41 sets the first electrode 310 held in a non-selected state to a state of having an impedance higher than that of the first electrode 310 held in a selected state.

Claim 2 recites all the elements in claim 1, and further recites “wherein said second driving means 42 sets the second electrode 311 held in a non-selected state to a state of having an impedance higher than that of the second electrode 311 held in a selected state”.

The invention is also directed to a driving method of an image display comprising: providing the image display recited in claim 1 or claim 2, setting the first electrode held in a non-selected state to a state of having an impedance higher than that of the first electrode held in a selected state (claims 11-12), and setting the second electrode held in a non-selected state to a state of having an impedance higher than that of the second electrode held in a selected state (claim 12).

The invention recited in claims 16-17 is also directed to an image display comprising the image display recited in claim 1 or claim 2, but instead of “electron-emitter elements each having a structure comprised of a base electrode, **an insulating layer** and a top electrode stacked on one another in this order” incorporating “**thin-film electron emitters each having a base electrode and a top electrode.**”

Applicants contend that none of the cited prior art references teaches or suggests such “a plurality of electron-emitter elements 301 each having a structure comprised of a base electrode 13, (an insulating layer 12) and a top electrode 32 stacked on one another in this order, said electron-emitter element 301 emitting electrons from the surface of the top electrode 32 (as shown in Fig. 8) when a voltage of positive polarity is applied to the top

electrode 32” according to the invention.

In contrast, Sarrasin’s microtip electrode 16 (alleged by the Examiner as equivalent to the electron-emitter element of the invention) is just the tip shown in the enclosed Explanatory Drawing such that it is only part of a microtip cathode. A microtip cathode consists of an array of tiny pointed emitters 16 located below a gate containing a corresponding array of apertures/holes 18 (col. 4, lines 46-49). Most microtips are either made of metal, such as molybdenum, niobium or silicon-polysilicon and are fabricated on small or very- large-area substrates of either silicon or glass. As such, Sarrasin’s microtip electrode 16 itself does not include a base electrode, (an insulating layer) and a top electrode stacked on one another in this order as an electron-emitter element 301 of the invention. In addition, the electrons in Sarrasin are emitted from the microtip electrodes 16 carried by the column electrode 8, rather than from the row electrode 10 (~ arguably equivalent to the top electrode of the invention) as in the invention.

Even if, arguendo, the microtip cathode, i.e., the combination of the microtip electrode 16 (~ arguably equivalent to the top electrode of the invention), the insulating layer 12, and the column electrode 8, may be comparable to an electron-emitter element 301 of the invention, such a combination would still fall short in fully meeting the electron-emitter element 301 of the invention. First of all, Sarrasin’s electrons are emitted by simultaneously polarizing the cathodes 8, the grids 10, and **the anode 20** (col. 4, lines 35-60), rather than polarizing the base electrode 8 and **the top electrode 16** as does the invention. The cathodes 8 and the grids 10 are located on the wall 6 (~ arguably equivalent to the first plate of the invention), while the anode 20 is located on the wall 4 (~ arguably equivalent to the another/second plate of the invention). Sarrasin polarizes elements on two different plates/walls to emit electrons, rather than elements (the base electrode 13 and the top electrode 32 in Fig. 8) on the same/first plate as the invention. Secondly, Sarrasin’s electrons are emitted by a totally different structure which requires a much higher potential, i.e., raising the potential of the anode 20 to 200-600 V (col. 4, line 58), rather than by applying the row electrode 310 at -5V and the column electrode 311 at 4.5 V (p. 27, line 21 to p. 28, line 6) as the invention.

Applicants contend that Sarrasin fails to teach or suggest each and every feature of the present invention as disclosed in the independent claims 1-2, 11-12 and 16-17. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order,

and is respectfully solicited.

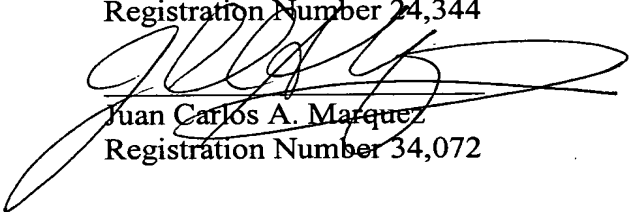
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344



Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

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SPF/JCM/JT

IN THE DRAWINGS:

Please enter the attached corrected drawings Figs. 13-15, in which the legend "Prior Art" is being added, to replace Figs. 13-15 as originally filed. A Letter to Draftsperson is also submitted herewith.